**Rent Bike & Make Transaction Design Review**

1. ***Coupling***
   1. Content coupling

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| Related modules | Description |
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* 1. Common coupling

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| Related modules | Description |
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* 1. Control coupling

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| Related modules | Description |
| PaymentResultScreenHandler and PaymentScreenHandler | PaymentResultScreenHandler break the nested loop inside PaymentScreenHandler after user confirm the payment result so that PaymentScreenHandler finally return the result of the transaction for other class to continue their operation. |

* 1. Stamp coupling

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| Related modules | Description |
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* 1. Data coupling

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| Related modules | Description |
| TransactionController, RentBikeController, InterbankBoundary, BarcodeScreen, RentBikeConfirmation, InterbankSubsystem, InterbankSubsystemControl, CreditCard, PaymentTransaction, Request, Response, Database | Classes that communicate to each other using parameters and each parameter used is neccessary |

1. ***Cohesion***
   1. Coincidental cohesion

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| Related modules | Description |
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* 1. Logical cohesion

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| Related modules | Description |
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* 1. Temporal cohesion

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| Related modules | Description |
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* 1. Procedural cohesion

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| Related modules | Description |
| TransactionController | The methods in TransactionController follow a sequence of execution: checkTransactionInfo -> makeTransaction |
| RentBikeController | The methods in RentBikeController follow a sequence of execution: requestToRentBike -> validateBarcode (incase that requestToRentBike use barcode) -> rentBike |
| InterbankBoundary | The methods in InterbankBoundary follows a sequence of execution: allowMethods -> setUpConnection -> post |

* 1. Communicational cohesion

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| Related modules | Description |
| PaymentScreenHandler, PaymentResultScreenHandler, BarcodeScreen, RentBikeConfirmation | These classes should have communicational cohesion since they are all GUI handler class that operate on their respective screen based on user’s interaction. |

* 1. Sequential cohesion

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| Related modules | Description |
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* 1. Functional cohesion

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| Related modules | Description |
| InterbankSubsystem, InterbankSubsystemControl | These classes components serves for one specific purpose: make payment transaction |
| CreditCard, PaymentTransaction, Request, Response | Entities classes with sole purpose of represent that entity |
| Database | Class that represent the database of the project and return the connection to the database |